In the above-described sixth embodiment, the first and second examples of the structure are directed to so-called back-surface emission type OELDs, which emit EL light from the lower surface side of the array substrate AS. Alternatively, the sixth embodiment is applicable to a so-called front-surface emission type OELD, as in a third example of the structure shown in FIG. **19**. In this case, the first electrode FE is formed of a light-reflective material and the second electrode SE is formed of a light-transmissive material, whereby EL light is emitted from the front surface side of the array substrate AS. In the case of the front-surface emission type OELD, compared to the back-surface emission type OELD, the aperture ratio is increased and the luminance is enhanced. In this case, for example, a protection film PF, which also serves for flattening, is provided on the sealing body SB, and a polarizer plate PL is further provided thereon. On the back side of the array substrate AS, a reinforcement plate RP is disposed in place of the polarizer plate. This reinforcement plate RP is configured similarly with the preceding embodiments.

As has been described above, each of the first to sixth embodiments of the invention provides a display apparatus having a plurality of display pixel sections, wherein an optical material is sealed between a pair of glass substrates. Each of the glass substrates has a film that is attached to the outer surface of the glass substrate and is thicker than the glass substrate. At least one of the films is formed of a polarizer plate. Each glass substrate is formed to have such a thickness as to permit bending of the display apparatus.

The display apparatus having a light-transmissive liquid crystal panel, as in the first embodiment (FIG. **2**), third embodiment (FIG. **9**) and fifth embodiment (FIG. **15**), includes flexible polarizer plates disposed on the paired glass substrates. The display apparatus having a light-reflective liquid crystal panel, as in the second embodiment (FIG. **3**) and fourth embodiment (FIG. **10**), includes one film, which is the polarizer plate, and the other film, which is the flexible reinforcement plate. The display apparatus composed of the OELD, as in the first example (FIG. **17**) and second example (FIG. **18**) of the structure of the sixth embodiment, includes films, one of which is the polarizer plate. Thereby, flexible display apparatuses with small thickness and high durability can be provided.

The thickness of each of the glass substrates is set at 0.15 mm or less, and preferably 0.1 mm or less. Thereby, the fabricated display apparatus can be made flexible. With the provision of glass substrates each having such a thickness, the display apparatus can be bent with a radius of curvature of 200 mm or less.

In each of the display apparatuses of the first to fifth embodiments, a liquid crystal composition is employed as an optical material, and a liquid crystal layer formed of the liquid crystal composition is held between the paired substrates. The display apparatus of the sixth embodiment includes an EL material as an optical material, which forms the organic active layer.

Each of the first to sixth embodiments of the invention provides a display apparatus having a plurality of display pixel sections disposed on one of major surfaces (i.e. front surface) of a glass substrate. The glass substrate has a polarizer plate that is extended to the end of the glass substrate on the other major surface (i.e. back surface) of the glass substrate and is thicker than the glass substrate. The glass substrate is configured to have such a thickness as to permit bending of the display apparatus.

It is imperative that the thickness of the polarizer plate be greater than the thickness of the glass substrate. However, it is desirable that the thickness of the polarizer plate be limited to such a value as to ensure reduction in thickness of the display apparatus. For example, this thickness is set at 0.5 mm or less.

The display apparatus according to each of the above-described embodiments, which has a plurality of display pixel sections that are formed by sealing an optical material between a pair of glass substrates, is manufactured by the following steps: (a) a step of attaching the pair of glass substrates together with a predetermined distance; (b) polishing an outer surface of each of the glass substrates to a thickness of 0.15 mm or less; (c) attaching a film to the outer surface of at least one of the glass substrates, the film having a thickness greater than a thickness of the glass substrate; and (d) cutting the film and the pair of glass substrates into a predetermined size.

Specifically, as described in connection with the first embodiment, the step (a) of attaching the glass substrates together is as illustrated in FIGS. **4**, **5** and **6**A. The polishing step (b) is as illustrated in FIG. **6**B and FIG. **7**A. The film attaching step (c) is as illustrated in FIG. **6**C and FIG. **7**B. The cutting step (d) is as illustrated in FIG. **7**B and FIG. **7**C.

Prior to the step of attaching the glass substrates together, a step of dropping a liquid crystal composition on one of the glass substrates may be added. Specifically, the step of dropping is as illustrated in FIG. **4** and FIG. **5**. This makes the manufacturing time shorter than in the case of vacuum-injecting the liquid crystal composition.

Besides, following the cutting step, a step of connecting the glass substrate, on which no film is disposed, to an external electrode terminal may be added. Furthermore, following the step of connection to the external electrode terminal, a step of attaching another film on the glass substrate may be added.

The present invention is not limited to the above-described embodiments. At the stage of practicing the invention, various modifications and alterations may be made without departing from the spirit of the invention. The embodiments may properly be combined and practiced, if possible. In this case, advantages are obtained by the combinations.

As has been described above, the present invention can provide a display apparatus and a manufacturing method thereof, which can achieve further reduction in thickness while maintaining display performance. In addition, the invention can provide a display apparatus and a manufacturing method thereof, which can achieve further reduction in thickness while having high durability.

What is claimed is:

1. A display apparatus comprising:

a plurality of display pixel sections on a major surface of a substrate, wherein

the substrate has a glass substrate and a polarizer plate that is disposed to extend to an end part of the glass substrate on another major surface of the substrate, and has a thickness greater than a thickness of the glass substrate, and

the glass substrate has a thickness that permits bending of the display apparatus, wherein